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|--|-------|------|---|--|
| <b>Program ENRAM training school, Rome</b>                         |       |      |   |  |
| 20-22 Feb 2017   |       |      |   |  |
| venue: Terna electric utility company                              |       |      |   |  |
| <b>day 1: 20 Feb 2017</b>  |       |      |   |  |
| <i>morning: introduction radar theory</i>                          |       |      |   |  |
| start  | end   |      | topic   | lecturer (co-lecturers)                                  |
| 9:00   | 9:10  |      | welcome venue host & sponsor  | Terna  |
| 9:10   | 9:45  |      | welcome & introduction round  |  |
| 9:45   | 10:30 | L1.1 | short history (weather) radar<br>aeroecology                        | Sidney Gauthreaux, Alistair Drake                        |
| 10:30  | 11:00 |      | coffee  |  |
| 11:00  | 11:45 | L1.2 | Introduction radar theory   | Robb Diehl   |
| 11:45  | 12:30 | L1.3 | basic weather radar products &<br>animal signatures in radar data   | Alistair Drake, Jarmo Koistinen, Phil Stepanian          |
|  |       |      |   |  |
| 12:30  | 14:00 |      | lunch   |  |
| <i>afternoon: handling, visualising and inspecting radar scans</i> |       |      |   |  |
| 14:00  | 15:30 | P1.1 | practical 1: basic radar data<br>visualisation                      | Phil Stepanian (Adriaan Dokter, Vladislav Kosarev)       |
| 15:30  | 16:00 |      | break   |  |
| 16:00  | 17:30 | P1.2 | practical 2: interpreting PPIs, using<br>collection of case studies | Jarmo Koistinen (Phil Stepanian, Jeff Buler, Robb Diehl) |
|  |       |      |   |  |
| evening  |       |      | joint dinner in Rome  |  |
| <b>day 2: 21 Feb 2017</b>  |       |      |   |  |
| <i>morning: quantifying and identifying biological signatures</i>  |       |      |   |  |

| start  | end   |      | topic   | lecturer   |
|--|-------|------|---|--|
| 9:00   | 9:45  | L2.1 | weather radar products continued & short review previous day  | Hidde Leijnse                                    |
| 9:45   | 10:30 | L2.2 | quantification algorithms of biological signatures  | Adriaan Dokter                                   |
| 10:30  | 11:00 |      | coffee  |  |
| 11:00  | 11:45 | L2.3 | intrduction to dual-polarimetry   | Phil Stepanian                                   |
| 11:45  | 12:30 | L2.4 | (weather) radar entomology  | Alistair Drake (Hongqiang Feng)                  |
|  |       |      |   |  |
| 12:30  | 14:00 |      | lunch   |  |
| 14:00  | 15:30 | P2.1 | Basic analysis and visualisation of vertical bird profiles  | Adriaan Dokter, Vladislav Kosarev, Hidde Leijnse |
| 15:30  | 16:00 |      | break   |  |
| 16:00  | 17:30 | P2.1 | Advanced interpretation of profile data   | Adriaan Dokter, Vladislav Kosarev, Hidde Leijnse |
|  |       |      |   |  |
|  |       |      |   |  |
| <b>day 3: 22 Feb 2017</b>                            |       |      |   |  |
| <i>morning: advanced topics in radar aeroecology</i> |       |      |   |  |
| start  | end   |      | topic   | lecturer   |
| 9:00   | 9:45  | L3.1 | Migratory stopover  | Jeff Buler                                       |
| 9:45   | 10:30 | L3.2 | Group discussion: how to design good radar research questions. What are the general strengths & limitations of radar techniques | all  |
| 10:30  | 11:00 |      | coffee  |  |
| 11:00  | 12:30 | P3.1 | practical 1: dual-polarimetry   | Phil Stepanian (Jarmo Koistinen, Hidde Leijnse)  |
|  |       |      |   |  |
| 12:30  | 14:00 |      | lunch   |  |

|       |       |      |  |                        |
|-------|-------|------|--|------------------------|
| 14:00 | 15:30 | P3.2 | practical 2: spatial analyses within low-elevations scans / habitat associations | Jeff Buler, Robb Diehl |
| 15:30 | 16:00 |      | break  |                        |
| 16:00 | 17:00 | L3.3 | Radar in aeroecology: what have we learnt, what are the frontiers?               | Thomas Alerstam        |
| 17:00 | 17:30 |      | closing  |                        |